From Exercise

Avoided Costs

Process

- Stability and Commission following its own rules
- Out of cycle changes visibility justification process rules reliability
- LEO formation (interacts with contract process)
- Timing Update process
- o Ability to understand how non-standard prices are set
- Avoided costs should be determined under its own process
- Administratively determined inputs frequently stale
- If actually avoidable? Always avoidable? (Broader application)
- Certainty in timing of Avoided Cost changes
- Timing for price changes
- How to capture in avoided costs procurements outside of action plan
- Need for including PURPA goal of increasing use of renewable energy with other goals such as customer indifference
- Calculated by Staff instead of utilities?
- Difficulty of forecasting future resource costs
- o Resource deficiency date vs. inputs RPS
- Introduce market competition

Modeling /Methodology

- Rebuilding methodology from ground up
- Ability to update with market changes
- Anomalies and outliers in average cost concept
- Consideration of environmental and social benefits
- Best Avoided Cost practice in IRP tools and models
- Sufficiency Deficiency
 - Resource deficiency date capacity
 - Define sufficiency and deficiency
- o Including transmission?
- Firm vs non-firm eligibility
- Avoided cost methodology (Changes to...)
- Transparent comparison with cost treatment of utility's own assets
- Need to account for effects of competition and market
- Market-based avoided cost cost of a resource utility can avoid vetted by competitive process
- Market component
- Accounting for resources acquired outside of IRP plan
- Market index pricing

Assumptions / Inputs

- o Apples to apples on inputs and PPA terms 15 year vs 40 year
- Carbon compact
- Cap and trade

UM 2000

April 5 – Workshop Notes

- Ability to challenge prices
- Capacity (value of)
 - Project's capacity contribution
- Verification of inputs
- o Account for rapidly decreasing technology costs
- One REC, one price
- Technology (Assessing and Incorporation)
 - Storage
 - Battery pricing

Contract

Process Issues

- Seller provided vs utility discretion
- Timing for existing project to re-new contract (timeline to lock in prices)
- Process Interactions with utilities email only vs actual need 15 business days only
- PPA contracting process info requests by utilities
- o PPA drafting process utilities only no redlines
- Lead time on
- Time period for existing projects to "lock" avoided costs
- Timing of standard PPA process (between 3-10 MW) 15 business days versus 30 business days
- LEO issue ability to form without utility action
- Contract process takes too long
- Arbitrary timelines in contracting process
- Contract No official(?) will answer phone or call
- Contracting process every issue and question, anything 15 business days or 30 business days
- Treatment of contract renewals
- Contract renewals need a shorter timeframe for renewals given existing QF projects
- Non-standard PPA (all aspects)
- Contraction No penalties for bad behavior by utilities
- Post communication problems
- Time built into process for QF response

Provisions

- Need for "Performance Guarantee"
- Need LEO tied to project viability currently a free option
- EIM contract changes to standard PPA
- Forecasting and scheduling provisions
- Liquidated damages
- Term number of years
- Adjusting price during term
- Resource types differences vs similarities
- Changing standard terms over time evolution
- Definition of baseload
- o Interconnection impact on PPA compliance
- o Ability to change COD based on interconnection delays
- Lender protection provisions estoppels, notices, consent to assign (Fast track?)
- o Intra-hour
- Changes in contract information requirements
- Interconnection study requirements prior to contracting/LEO
- Availability of long term contracts (e.g. schedule 202)
- o Ability to change QF size at the end of the interconnection process
- Sufficient long-term firm transmission must be obtained to deliver power on utility system
- With sufficient ATC

UM 2000

April 5 – Workshop Notes

- Need for concrete project info and future milestones during process
- o Finance
- Treatment of battery
- o Ability to update standard contracts expeditiously
- Upgrades and storage
- o Time before PPA starts for existing QFs

Disputes

- Contested case process
- o Fair decision made, access to court
- o Efficient and effective dispute resolution
- Disputes during after
- o LEO

Rates/Timing

- o Interaction of contract process with avoided cost changes
- Load pocket generation surplus
- o Relationship of timing of avoided cost changes
- o Update of PPA tariffs and standard PPA processes and timing

Other

- o One standard contract offer
- o Number of separate standard contracts
- o OPUC policies implemented differently

Interconnection

Utility-Developer Interaction

- o Better communication between developer and utility engineer
- Studies ability to: audit, self-perform, challenge, discuss
- NR eligibility Audit Self perform
- Interconnection need customer right to self-perform studies, builds with quality vendors
- Studies ability to: audit, self-perform, challenge, discuss
- Study Inputs develop interconnection, right to have so can validate
- Third party studies and construction
- Access to previous studies
- More transparency access to data
- Additional transparency
- Transparency access to data study data regs
- Analytics history on how process is working
- Data on study process audit/analyze
- Third party engineering firm allowed to review substance of interconnection report
- Communication with engineers
- Requirement that studies receive stamps
- Timing of requests in relation to purchase contracts
- Sources of utility cost assumptions

Overall Process

- No response obligation for utilities silence!
- o Network upgrade costs as a means to burden QF interconnection
- Who pays for network upgrades vs customer indifference education
- o Education on difference between interconnection and transmission
- o Requirement for back and forth on interconnection study report
- Timing of advance payments, refunds for overpayments
- Interconnection options fundamental options
- o Remedy if utility is short-staffed
- Utility Staff for interconnection studies (why delay? Short staffed?)
- Enough information to verify study results
- o Process barriers in implementation

Classification

- Special QF process NR resource
- The requirement that QFs take NRIS
- #1 NR requirements for QF PPA eligibility is garbage not consistent with variable resource
 \$\$\$\$
- Requirement to identify as QF (or not) at beginning of process
- o Inordinately high costs of network upgrades without sufficient technical justification
- Prompt payments
- Appropriate cost assignment for upgrades

Other

- o AR 521 language third party contractor reschedule
- o IOU RFPs use interconnection bid criteria to exclude RFP participation ratepayers screwed

- Interconnection queue issues deny ratepayers competitive options QFs RFP bidders
- o Transmission utility claim conditional firm isn't long-term firm
- Education
- o Real-time communication (SCADA) data
- Data protection cyber/physical security issues

Oversight

- No consequences for utility bad behavior
- o Education difference between open access policies and PURPA policies
- Utilities not making schedule studies tariff builds
- o Conflicts between PPA and interconnection agreements
- PPA and interconnection agreements interaction
- Changes to PPA COD due to delays
- o Need more strict requirements for utilities to follow timelines.
- Enforcement of existing rules
- Utility penalties on utility for failure to complete interconnection
- o Publication of interconnection study requirements
- Utilities need to comply with rules
- Lack of effective dispute resolution

Queue

- Lack of movement by PAC in processing the IC queue
- Keeping queue up to date
- o Education on serial queue order interconnection process requirements for QFs and non-QFs
- Make load queue public (load vs generation effects) study outcomes
- o Education appropriate use of publicly available interconnection data

Load Pockets

- Exist? Load pockets
- o "Load pockets"
- Queue and load pockets
- Education on load pockets
- Customer indifference in constrained areas
- Responsibility to locate project

• State – federal guidelines

- Entire QF-specific interconnection study construct is bogus (vs FERC OATT)
- Comparison of current OATT tariff policy different from federal mandate
- O What rules/guidelines apply to 10-20 MW projects?
- Use of "QF interconnection process/rules" artificial barrier to evade PURPA

Costs

- No cost sharing
- Cost allocation responsibility
- Lack of refunds for network upgrades
- Cost
- Lower cost equipment alternatives
- Cost What How much

UM 2000

April 5 – Workshop Notes

• Other

- o Informal technical dispute advisory board of industry representatives like OJUA
- o Mini focused issue workshops
- Option put all options on the table
- Communication

Planning:

Online assumptions

- QF renewal assumptions
- o Do not assume all QFs in the queue or requesting contracts will reach COD
- Treatment of QF queue in IRP assumptions, need, avoided cost
- o QF success rate vs use/assumptions in IRP and avoided costs
- Utility plans for QF coming online but PPAs do not provide binding provisions for them to actually do so
- o Batch/timeframe for QF application and contract execution
- Realistic assumptions for QFs to come online

IRP-Issues

- Ability to challenge IRP
- Timing mismatch in IRP and avoided costs
- o Long-term planning assumptions not developed for pricing assumptions
- Stale data
- QF ability to rely on process vs IRP vs Avoided Cost Updates/tying
- o Review and inputs from stakeholders on inputs to Avoided Costs
- How sufficiency and deficiency dates are determined, IRP might not be accurate
- o Is the IRP the appropriate place to derive avoided cost inputs?
- What is utility need, e.g. need = FOTs
- Sufficiency/deficiency
- Sufficiency/deficiency

Process

- Timing how IRP timeline fits into other processes
- o IRP-RFP
- o IRP is a planning document, not a binding document
- Very little scrutiny outside of IRP action plan window
- Inconsistent with actual plans/actions
- Its tie to Avoided Cost pricing or not
- Standard for avoided cost changes vs IRP process

Other

- o PacifiCorp: merch. Priority
- Distribution System Planning
- Can IOUS reserve transmission capacity for themselves
- Meaningful damage provisions
- ATC at delivery points
- o Real-time capacity contribution values
- Not reflected







